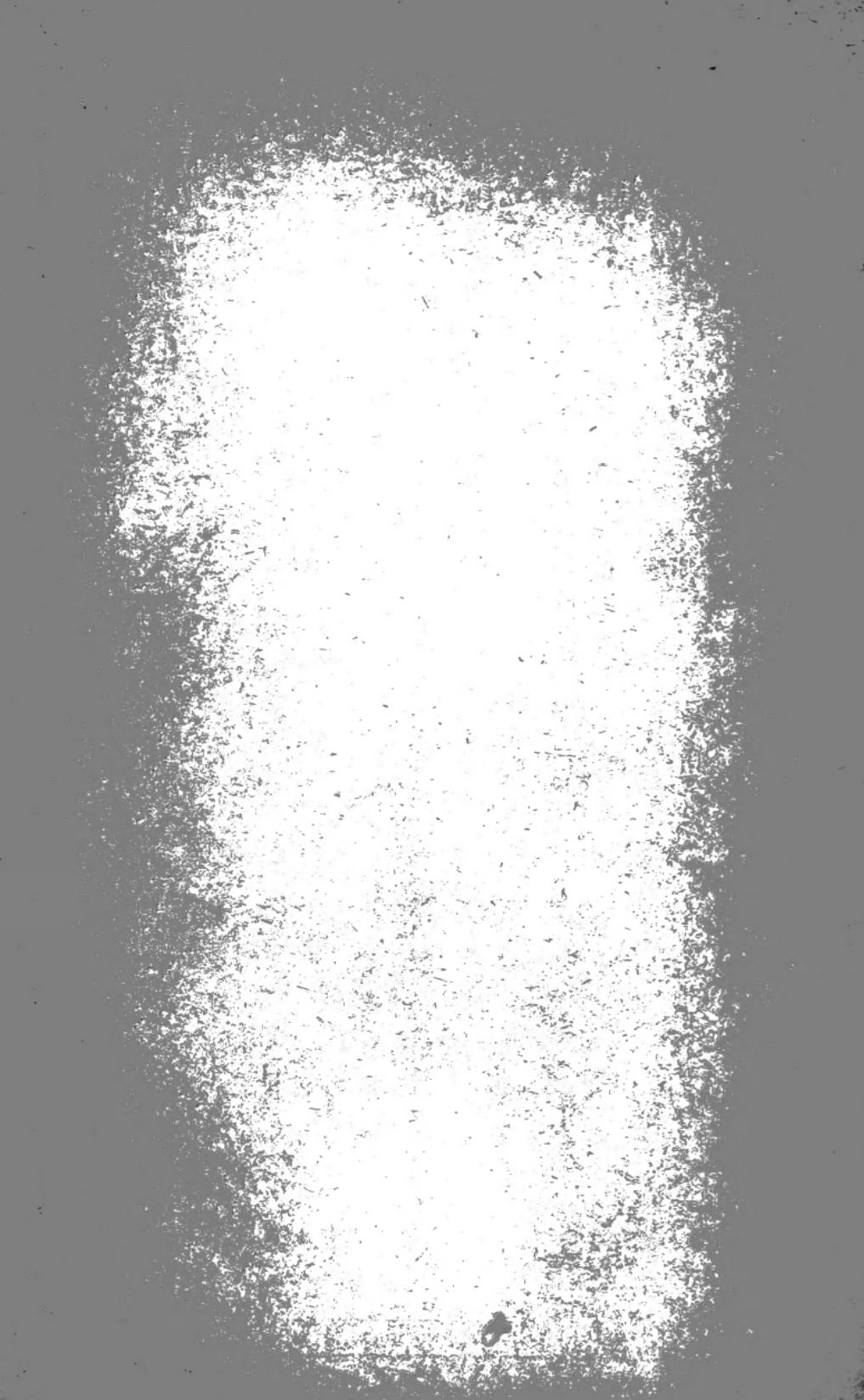


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P. Case. M.

A. GUIDE

TO THE

GOULD COLLECTION OF HUMMING-BIRDS

IN THE

BRITISH MUSEUM.



PRINTED BY ORDER OF THE TRUSTEES.

1883.

PRICE TWOPENCE.

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ALERE FLAMMAM.



PRINTED BY TAYLOR AND FRANCIS,
RED LION COURT, FLEET STREET.

HUMMING-BIRDS.

THE collection of Humming-birds exhibited in the British Museum was formed by the late Mr. John Gould, F.R.S., who commenced the study of this family of birds some forty years ago. The difficulties of obtaining new or rare species from countries previously untrodden by the collector were much greater then than they are in the present day ; but the energy and enthusiasm of John Gould overcame all obstacles ; he lost no opportunity of acquiring, at any cost, species not represented in his collection ; he incited by high rewards travellers to go specially in search of rare or unknown species ; and after the lapse of twenty years he had succeeded in bringing together a series far exceeding in variety of forms his own expectation or that of ornithologists generally. He commenced the publication of a great work, 'The Monograph of the Trochilidæ,' which finally extended to five volumes in folio, and comprised descriptions and figures of about 400 different species.

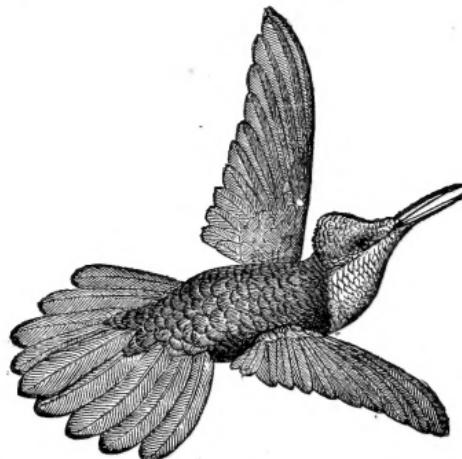
From an early period he began to mount with his own hand the most remarkable types, placing as much as possible allied forms in the same case, and demonstrating their habits and chief characteristics, and especially the ever-varying hues of their colours, by the different attitudes in which he arranged the specimens. This collection of mounted Humming-birds contained about 300 species and 2000 specimens when he exhibited it in the Zoological Gardens in Regent's Park during the Great Exhibition of 1851. It proved one of the great attractions in London during that memorable year ; and after it had been

exhibited to the public for a year or two, he removed it to his residence in Charlotte Street, Bedford Square, where he had built a gallery for its reception. Here it remained until his death in February 1881.

It was always Mr. Gould's hope and wish that the whole collection of mounted and unmounted specimens should be preserved as the property of the nation ; and accordingly it was offered by his Executors to the Trustees of the British Museum, who purchased it in the same year. The acquisition of this collection was all the more important, as almost all the original specimens from which the figures in his work on Humming-birds were taken are contained in it.

We can here only shortly refer to some of the principal features which give so great an interest to this group of birds. Those who are desirous of reading a fuller account should consult Mr. Gould's 'Introduction to the Trochilidæ' (London, 1861, 8vo).

Humming-birds or *Trochilidæ*, formerly placed in most classifications in the Order of Tenuirostres or Slender-billed Birds, form a group by themselves *. They are most nearly allied to



The "Ruby and Topaz" Humming-bird (*Chrysolampis mosquitus*). (Half nat. size.)

* The two species figured in this Guide-book (*Chrysolampis mosquitus* and *Dicrurus ensiferus*) have been selected, the one to show the general form of a typical Humming-bird, the other to illustrate one of those numerous wonderful modifications of structure fitting the species for some special object in its habits.

the Swifts, with which they have many points of their internal organization in common. Even their long slender bills, which appear so very different from the wide-gaping mouth of a Swift, are much less so at an early period of their life. Mr. Wallace describes the nestlings of some Humming-bird which had the bill short and broadened and the gape wide, and, in fact, more

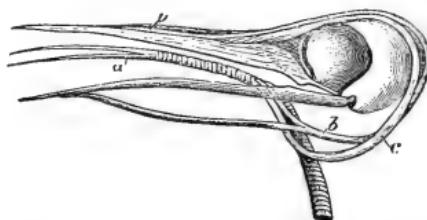


The "Sword-bill" Humming-bird feeding on the tubular flowers of *Brugmansia*.
(One fourth nat. size.)

resembling that of a Swift than that of the adult parent bird. The bill of Humming-birds, although always very slender, is very variable in shape and size, being straight in some and curved in others ; in some extremely short, as in the Thorn-bills (*Ramphomicron*), and in others extremely long, as in the Sword-bill

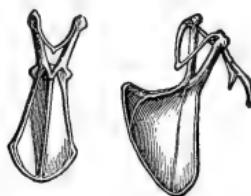
(*Docimastes*), where it is used in probing to the base of the long tubular flowers from which the bird derives its food.

The tongue is long, composed of two cylindrical united tubes, and bifid at the tip. It is capable of being protruded for some distance, the tongue-bones with their muscles being prolonged backwards and upwards over the back of the skull as in the



Skull of Humming-bird with tongue. *a*, tongue, bifid at the end; *b*, muscle retracting the tongue; *c*, muscle protruding the tongue.

Woodpeckers. The wings have ten primaries, and are, as a rule, narrow and pointed, apparently most unsuited for a sustained flight; but they are set in motion by enormously developed muscles which render the body of these tiny birds much heavier than one would expect. The sternum, which gives attachment



Front and side views of the breast-bone of a Humming-bird.

to these muscles, has a very deep keel and a rounded posterior margin without indentation or fissure. The tail is wonderfully varied in shape throughout the family, and in many instances highly ornamented; it consists of ten feathers and no more. The tarsi and feet are particularly small and feeble, and quite unfit for progression on the ground. Therefore these birds seldom or never alight on the earth, but prefer to settle on a bare dead limb of a tree or some other projection. The eggs are oval and white, and always two in number. The nest is a

delicate structure, compactly built of soft materials felted together ; its outside is generally adorned with lichens or dead leaves in such a manner as to tend to its concealment. The male is said to work at this decoration often after the female has commenced to sit. As a rule the male is the most brilliantly coloured, but in some instances the female is also adorned with metallic plumage.

Humming-birds possess an almost unique power and peculiarity of flight. The Duke of Argyll ('Reign of Law,' p. 175) describes it thus :—" The Humming-birds are perhaps the most remarkable examples in the world of the machinery of flight. The power of poising themselves in the air,—remaining absolutely stationary whilst they search the blossoms for insects,—is a power essential to their life When they intend progressive flight, it is effected with such velocity as to elude the eye. The action of the wing in all these cases is far too rapid to enable the observer to detect the exact difference between that kind of motion which keeps the bird at absolute rest in the air, and that which carries it along with such immense velocity. There is another fact mentioned by those who have watched their movements most closely—viz. the fact that the axis of the Humming-bird's body, when hovering, is always highly inclined, so much so as to appear almost perpendicular in the air. In other words, the wing-stroke, instead of being delivered perpendicularly downwards, which would infallibly carry the body onwards, is delivered at such an angle forwards as to bring to an exact balance the upward, the downward, and the forward forces which bear upon the body of the bird." The sight of a number of these birds feeding round some trees which are out in full bloom is described by all who have witnessed it as being one of the most remarkable spectacles of the Tropics.

Their intellect seems to be of a low order. In their disposition (says Mr. Gould) they are unlike birds, and approach more nearly the insects. Restlessness, irritability, and pugnacity are among their principal characteristics ; they not only fight persistently among themselves, but they will even venture to attack much larger birds, and it is said that several of them will combine and attack a Hawk and drive it away. People are often

attacked by them when they approach too near their nests. It is stated that they have also a great dislike to the large Hawk-moths or Sphinges, which they themselves somewhat resemble in their flight, the vibration of the wings producing in both a similar humming sound.

Humming-birds are extremely difficult to keep in confinement, owing probably to the impossibility of providing them with suitable food and with the means of indulging in their long and ceaseless flights. Liberty is to them life. Mr. Gould succeeded in bringing one alive to London, but it died two days after its arrival. In their native country they survive the loss of their liberty for a few months, and are said to become at once familiar to the persons attending to them.

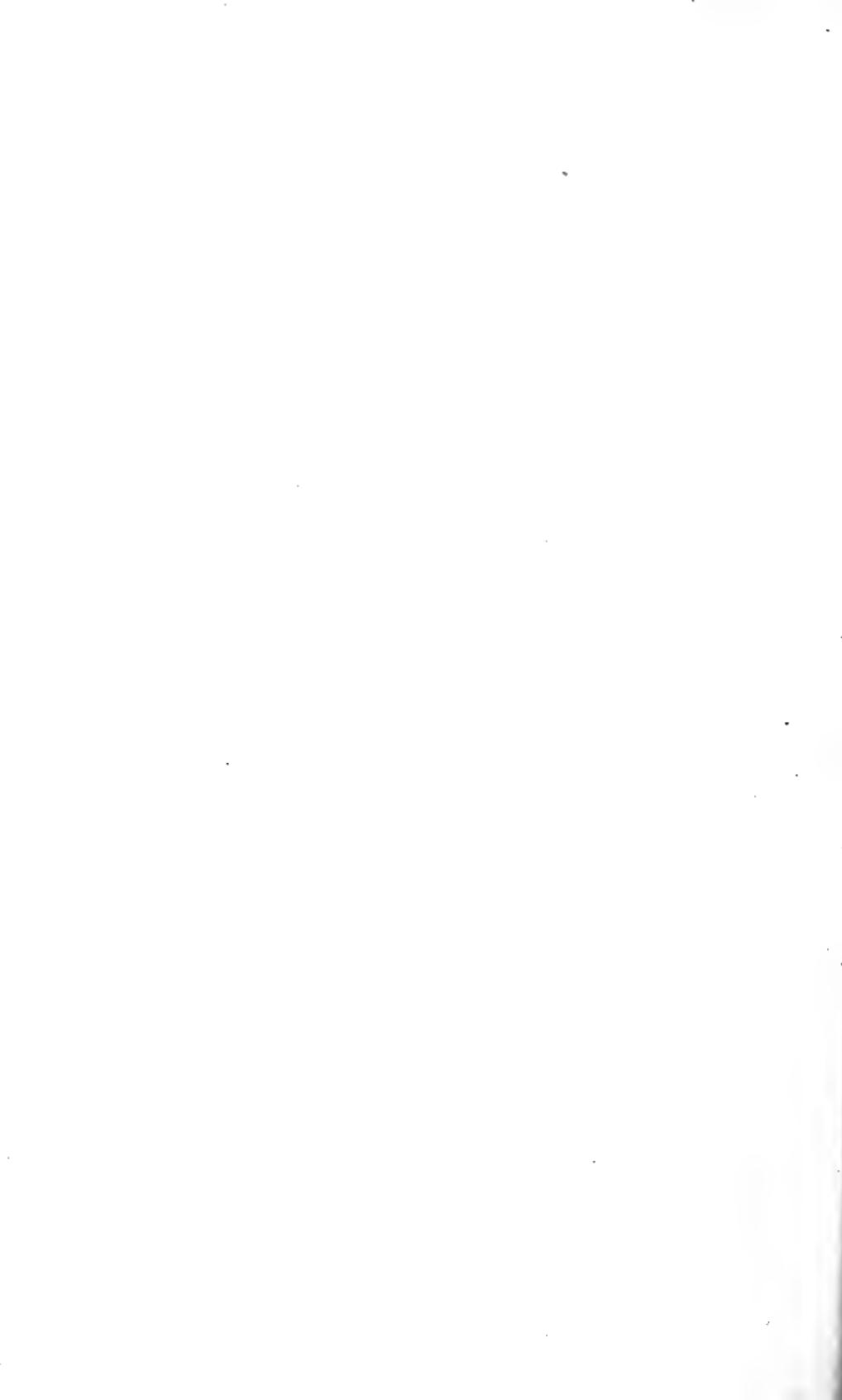
Humming-birds are entirely confined to the New World *. In popular accounts they are not rarely mentioned as occurring in Africa, India, and other tropical parts of the Old World ; but the birds thus misnamed belong to a very different group, viz. the *Nectariniidæ* or *Sun-birds*, which, indeed, offer a striking external resemblance to the true Humming-birds, but differ from them in the structure of the feet and tongue, in the shape of the sternum, and other most important characters. Altogether about 430 different kinds of Humming-birds are known. They range from Sitka in the far North-west to Tierra del Fuego, and from the lowlands near the coast to an altitude of 16,000 feet on the Andes. The northern and southern species, however, are migrants, and retire at the end of the short summer of the high latitudes towards the equator. The number of species increases as we approach the equator, the tropical forest-regions producing them in the greatest variety ; and an idea of the abundance of some of the species may be obtained from the fact that their skins have been for many years an article of trade, tens of thousands being annually exported from Bogotá and various places in Brazil, and sold in London, Paris, and New York.

Leaving out of consideration the species which have a wide

* The accompanying map shows the distribution of the Humming-birds over North and South America, the depth in the shade of colour being in proportion to the abundance of species in the several subregions.



DISTRIBUTION OF HUMMING-BIRDS.



range, we find that by far the largest number occur in a part of South America called the Sub-Andean subregion, which lies to the east of the Andes from Bolivia northwards and includes Ecuador, Colombia, Venezuela, and Guiana. Here live more than 200 peculiar species of Humming-birds. Next in regard to richness in the number of species comes the Central-American subregion, nearly 100 peculiar kinds being met with between the State of Panama and Northern Mexico. The Patagonian subregion, which includes Chili and the west coast of South America, is very poor in species, but possesses the largest of all the Humming-birds, the *Patagona gigas*. In the forest-clad districts of Brazil, of the valley of the Amazon and adjacent districts (Amazonian and Brazilian subregions), Humming-birds are abundant ; but comparatively few species (about 45) are peculiar to these countries, the majority being found also in the surrounding subregions.

The West-India islands are inhabited by 16 species, none of which extend to the mainland. Finally, not more than nine species are found within the borders of the United States, and these only as summer visitors, most of them retreating during the cold season to Mexico and Central America, though some are said to winter in California during mild winters.

L I S T
OF THE
S P E C I E S E X H I B I T E D*.

[Case 1.]

EUTOXERES.

“SICKLE-BILLS.”

Remarkable for their strong and greatly arched bills. When approaching a flower, like other Humming-birds, in a direct line, they have no sooner reached the calyx with their bills than they alter the position of their body in a downward direction, so that they appear to be suspended from the flower by the tip of the bill. The sexes are alike in plumage, which is rather plain. Three species are known, viz. *E. aquila* from Central America and Colombia, *E. heterura* and *E. condamini* from Ecuador.

[Case 2.]

RHAMPHODON.

“SAW-BILL.”

The male bird has the edge of the bill provided with dentations like the teeth of a saw; these are absent in the female. The plumage is rather dull, and the sexes are coloured alike. Only one species is known, from South-eastern Brazil—*R. naevius*.

[Case 3.]

GLAUCIS.

“ROUND-TAILED HERMITS.”

Like the two preceding, nearly allied, genera, the members of this genus are of somewhat dull coloration, and are known by the name of Hermits, not only on account of their colour, but also of their solitary habits. They have the slightly curved bill of *Rhamphodon*, but without serrations. Six species are known, distributed over the whole of Eastern Brazil, Guiana, Colombia, and Ecuador, ranging as far northward as Veragua.

* This list has been prepared by Mr. R. BOWDLER SHARPE. The majority of the (sometimes fanciful) English names are terms in general use, or given by Mr. Gould. The classification followed is that of Mr. D. G. ELLIOT in his ‘Synopsis of the Humming-birds.’

[Case 4.]

PHAETHORNIS.

“LONG-TAILED HERMITS.”

This genus of Hermits contains a large number of species, distinguished by the peculiar shape of their tails, which are strongly graduated, the middle feathers being the longest, and in most of the species all the tail-feathers are conspicuously tipped with white. The male and female are alike in coloration. More than twenty species are now recognized by naturalists; they inhabit Central America from Southern Mexico, and extend through all the countries of Western America from Colombia to Peru and Bolivia, ranging also into Southern Brazil. They inhabit also Venezuela and Guiana, but are not found in Western Brazil.

[Case 5.]

EUPETOMENA*.

“SWALLOW-TAILS.”

This, the first genus of the more brilliantly plumaged Humming-birds, is distinguished by its deeply forked tail and strong wings, which, in the male bird, have the shafts of the primary, or long, quills broad and flattened, giving the birds increased strength of flight. Two species are known, *E. macrura* (here exhibited) from Brazil and Guiana, and *E. hirundo* from Eastern Peru.

[Case 6.]

CAMPYLOPTERUS.

“SABRE-WINGS.”

This genus differs from the preceding in not having the tail forked. Ten species have been described, which are found from Mexico throughout Central America to Venezuela, Guiana, and Northern Brazil, and down the western side of the continent as far as Peru.

The Sabre-wings are powerful fliers, and appear to be somewhat migratory. They are very pugnacious, and the males fight with great fury in the air, the battle often terminating in the tongue of the vanquished bird being split, so that it ultimately dies from inability to procure food.

[Case 7.]

CŒLIGENA.

“CAZIQUES.”

Tail rounded and rather long. Bill straight and as long as the head. Four species are known, distinguished by the different colours of their throats, which are beautifully metallic. They are all inhabitants of Central America.

* The same case contains specimens of *Florisuga*. *Vide infrà*, p. 11.

[Case 7.]*

LAMPROLÆMA.

“GARNET.”

One of the most beautiful of the Humming-birds, and the sole representative of the genus to which it belongs. The brilliancy of the throat and breast are remarkable. It is found only in Central America, from Mexico to Guatemala.

[Case 8.]

OREOTROCHILUS.

“HILL-STARS.”

Inhabitants of the Andes from Ecuador to Chili; they are generally found on volcanic mountains, just below the line of perpetual snow. They hunt for insects on the ground among the moss-covered clumps, but desert these when flowering shrubs are out. The females are less brightly coloured than the males.

Six species are known:—*O. chimborazo* from the volcano of Chimborazo in Ecuador, altitude 14,000 feet; *O. pichincha* from the neighbouring volcanoes of Pichincha and Cotopaxi; *O. estellæ* from Bolivia and Peru; *O. leucopleurus* from the Chilian Andes; *O. melanogaster* from Peru; and *O. adelæ* from Bolivia. All these species are exhibited.

[Case 9.]

LAMPORNIS.

“MANGOS.”

The tail is only slightly forked, and remarkable for its metallic colouring. The females are less brightly plumaged than the males. Eight species are known, the majority of which are very common in the localities in which they occur. They are found in the West-India islands, and range on the opposite mainland from Mexico throughout Central America to Venezuela, Colombia, Guiana, and Eastern Brazil.

[Case 10.]

EULAMPIIS.

“CARIBS.”

The tail in this genus is even or rounded, and the upper tail-coverts are very conspicuous, broad, resembling plates of shining metal. The feathers of the forehead project, partly covering the nostrils; but perhaps the most striking character is the absolute similarity of the sexes, the female being as brightly coloured as the male. Two species are known, from some of the West-India islands, viz. S. Thomas, S. Croix, Nevis, Martinique, Dominica, and Santa Lucia.

[Case 11.]

LAFRESNAYA.

“VELVET-BREASTS.”

Rather strongly-built birds, with very slender curved bills and metallic-green breast, which strongly contrasts with the black abdomen.

* This case also contains *Eugenes*. *Vide infrà*, p. 12.

The females are not so brightly coloured, having a white or buff under-surface spangled with green. Two species are known—*L. flavicaudata*, from the highlands of Colombia, and *L. gayi*, which represents the former in Venezuela and Ecuador.

[Case 5.]*

FLORISUGA.

“ JACOBINS.”

The pure white tail and the very long under tail-coverts are the principal characters of this genus. The bill is straight and rather stout. Two species only are known, *F. mellivora* and *F. fusca*. The latter is confined to Brazil, whilst the former has an unusually wide range, viz. from Guatemala to Colombia, Peru, and Upper Amazonia, and extends eastwards through Venezuela and Guiana, inhabiting also the islands of Trinidad and Tobago.

[Case 12.]

PETASOPHORA.

“ VIOLET-EARS.”

In this well-marked genus the colouring of the male and female are alike, but the latter is always smaller than her mate. The bill is longer than the head itself, and quite straight. The nostrils are covered by the plumes of the forehead. Six species are known, inhabiting the whole of Central America, and extending all over South America from the southern confines of Brazil to Bolivia and Peru. They are all lovers of the dense forest.

[Case 13.]†

PANOPLITES.

“ GREEN-BACKS.”

Plumage very brilliant in the typical species, *P. jardini*. The sexes are alike in plumage, and the tarsi are booted. Only three species are known, all of which are exhibited, viz.:—*P. jardini* from Ecuador; *P. flavescens*, also from Ecuador, ranging into the Andes of Colombia; and *P. matthewsi*, remarkable for its chestnut under-surface, from Western Ecuador and Peru.

[Case 14.]

PHÆOLÆMA.

“ LILAC-THROATS.”

The sexes alike. Bill straight, and longer than the head. The metallic colours are confined to the crown of the head and a spot on the throat; the latter is conspicuous and metallic-lilac. Two species are known, *P. rubinoides* from Colombia, and *P. aequatorialis* from Ecuador.

* *Vide supra*, p. 9.

† This case contains also *Eustephanus*. *Vide infrà*, p. 14.

[Case 14.]

HELIODOXA.

" BRILLIANTS."

The tail is long and forked, the tarsi clothed with feathers, some to the base of the toes ; the bill is stout and about the same length as the head. Four species are known, ranging from Costa Rica to Venezuela and Colombia, and thence to Ecuador and Peru.

[Case 14.]

CLYTOLÆMA.

" RUBIES."

The sexes are different in colour. The tarsi only partly clothed or booted, the tail being forked, and the bill stout, straight, and longer than the head. The Rubies inhabit the lowlands of Brazil, Ecuador, and Peru. Two species are known—*C. rubinea* and *C. aurescens*.

[Case 7.]*

EUGENES.

" RIVOLI."

The bill straight, the wings long and pointed, and the tarsi clothed. Two species have been described :—*E. fulgens*, which ranges from Texas, through Mexico, to Guatemala ; and *E. spectabilis*, which replaces it in Costa Rica.

[Case 15.]

IONOLÆMA.

" GORGETS."

Four species have been described, of which the one exhibited, *I. frontalis*, is the best known. They are all stoutly built birds, and are readily recognized by their brilliant spots on the throat. The nostrils are completely hidden by the feathers of the forehead, and the tail is deeply forked.

[Case 16.]

EUGENIA.

" EMPRESS HUMMING-BIRD."

Distinguished by its long and stout bill, its forked tail, the feathers of which are stiffened, and by the feathering of the tarsi, which extends nearly to the toes. The sexes are different, the female being more plain than the gorgeously coloured male. The single species at present known, *Eugenia imperatrix*, comes from the mountains of Ecuador, where it is found at a height of from 6000 to 7000 feet.

[Case 17.]

PTEROPHANES.

" SAPPHIRE-WING."

A very powerful bird, the largest, perhaps, of all the family, excepting the *Patagona gigas* of Chili. The wings are very large and sickle-

* *Vide supra*, p. 10.

shaped, the tarsi are clothed, and the bill is very stout and slightly up-turned at the point. The female is much duller coloured than the male. One species only known, *Pterophanes temmincki*, which extends into Colombia, through Ecuador, to Peru and Bolivia.

[Case 18.]

DOCIMASTES.

“SWORD-BILL.”

The long bill, which exceeds in length the entire body of the bird itself, is a character by which this Humming-bird may be distinguished from every other kind at the first glance. Its use is to reach the insects on which the bird feeds at the bottom of long tubular flowers. One species is known, *D. ensiferus*, an inhabitant of Colombia, Ecuador, and Peru.

[Case 19.]

DIPHLOGENA.

“RAINBOW.”

Ranks among the most brilliantly plumaged species of Humming-birds, and is remarkable for the blue and scarlet hues of the head. The bill is straight and very long, the tail deeply forked. The sexes are so different that for a long while the female of *Diphlogena iris* was considered to be a distinct species. Two species are known, *D. iris* from Bolivia, and *D. hesperus* from Ecuador.

[Case 20.]

HELIANTHEA.

“STAR-FRONTLETS.”

Like the preceding birds, the members of the present genus are all large, fine species, of the most brilliant coloration. All of them have a kind of star on their forehead, and the upper surface of the body is especially brilliant. Eight species have been described, which are found in Venezuela and Colombia, through Ecuador, to Peru and Bolivia.

[Case 21.]

BOURCIERIA.

“INCAS.”

Bill very long and straight; the tail long, broadened; the tarsi bare, the feet small and delicate, and generally white or rosy in colour. The sexes are alike in plumage, which is rather peculiar, and in the majority of the species black and white, with the crown blue or of some other brilliant colour. The members of this genus are distributed through Venezuela, Colombia, Ecuador, and Peru; and thirteen species are now recognized.

[Case 22.]

HEMISTEPHANIA.

“LANCE-BILL.”

A very singular form, on account of its structure as well as coloration. The bill is very long and straight, the wings very long for the size of the bird and slightly curved, and the tail rounded. Male and female alike in plumage, which is dove-coloured in the species exhibited. Five different kinds are known, inhabiting Veragua, and extending through Colombia into Ecuador.

[Case 23.]*

FLORICOLA AND HELIOMASTER.

“STAR-THROATS.”

The members of these two genera have all fine metallic crowns and throats; in *Floricola* the gorget is not elongated, whereas in *Heliomaster* this is a noticeable feature. Four species of *Floricola* are known, ranging from Mexico to Guiana, Venezuela, Colombia, and Ecuador, while the single representative of the genus *Heliomaster*, *H. furcifer*, comes from Brazil and Paraguay.

[Case 24.]

HELIANGELUS AND HELIOTRYPHA.

“SUN-ANGELS.”

In the first of these genera the bill is extremely slender, moderately long, and straight; wings long; tail slightly rounded. A band of white or buff crosses the breast. Five species are known, inhabiting Venezuela and Colombia, and ranging through Ecuador into Peru. *Heliotrypha* has much the same form as *Heliangelus*, but has not the light chest-band.

[Case 25.]

UROSTICTE.

“WHITE-TIPS.”

Bill straight and longer than the head; nostrils not covered with plumes; wings pointed; tail slight, forked. Only two species are known, both of which are remarkable for the brilliant colour of the throat—*U. ruficrissa* and *U. benjamini*, from Ecuador.

[Case 13.]

EUSTEPHANUS.

“FIRE-CROWNS.”

In the Chilian species (*E. galeritus*) the sexes are nearly alike; but in the two birds from the Juan-Fernandez Islands they are strikingly different, as will be seen from the specimens here exhibited. For many years the female was supposed to be a distinct species.

* The same case contains *Polytmus*. *Vide infrà*, p. 22.

[Case 26.]

TOPAZA.

“KINGS.”

The character of the tail, in which two feathers are elongate and cross each other, distinguishes the “King” Humming-birds, which well deserve their appellation, for there are scarcely any other members of the family which surpass them in brilliancy of plumage. The common species, *T. pella*, is found in Guiana and the island of Trinidad, extending into Brazil and up the Amazon, being replaced on the Rio Negro by *T. pyra*.

[Case 27.]

ÆTHURUS.

“LONG-TAILED HUMMING-BIRD.”

This singular bird has the last tail-feather but one produced to a great length, and a remarkable black crest on the head. The female is very different, neither does the young male possess the graceful elongated tail-feathers of the old bird. Only one species known (*Æ. polytmus*), which is confined to Jamaica.

[Case 28.]

THALURANIA.

“WOOD-NYMPHS.”

The members of the present genus do not show any striking characteristic; they possess moderate-sized wings and tail, a bill of moderate length and slightly curved, forked tail, and tarsi clothed with feathers. In the males the prevailing colour is green or blue, with a metallic colouring on the crown or throat. The females are duller in colour. Eleven species are known, extending from Northern Brazil, through Guiana and Venezuela, to Ecuador, and thence, ranging northwards, through Central America as far as Costa Rica and the Tres Marias Islands.

[Case 29.]

MICROCHÆRA.

“SNOW-CAPS.”

One of the most remarkable forms, differing entirely from other Humming-birds in the style of coloration. They are of diminutive size, blackish, with pure-white crowns. Two species only are known, from Central America.

[Case 30.]

TROCHILUS.

“COLIBRIS.”

Tail-feathers not so much pointed as in the preceding genus; wings short; the colour of the plumage not very brilliant, except on the throat. Two species are known—one of them, the *Trochilus colubris*, inhabiting North America during the summer, and migrating in winter to Central America and the West-India islands. It extends very far north, and is replaced in California and Mexico by an allied species, *T. alexandri*.

[Case 31.]

CALYPTE.

“AZTECS.”

These beautiful little birds have very pointed tail-feathers, and the colour of the throat is extremely brilliant in the males. The feathers of this luminous throat are also elongated at the sides, forming a kind of shield. Three species exist—*C. costæ* and *C. annæ* from Mexico and California, and *C. helenæ* from Cuba.

[Case 32.]

SELASPHORUS.

“FLAME-BEARERS.”

Also in these Humming-birds the outer tail-feathers are pointed, but the whole tail is very much broader. The throat-feathers are elongated at the side, and form a shield of brilliant colouring as in *Calypte*. The sound produced by the wings of these birds when in motion has been described as a loud rattling noise, more like the shrill chirrup of a locust than the buzzing of wings. They may often be seen during the early summer to mount forty or fifty yards straight up in the air, poising themselves a moment or two, and then darting down again, repeating the same manœuvre several times in succession. Sometimes, says Mr. Trippe, a score or more may be seen darting up and down together in this way for half an hour or more.

Eight species are known, and these range from Veragua in Central America to Mexico, and thence along western North America to Nootka Sound.

[Case 32.]

STELLULA.

“MEXICAN SATELLITE.”

Remarkable for its long sickle-shaped wing, which has the first primary stiffened. It has the throat luminous, with the lateral feathers pointed and forming a shield. One species only known, *Stellula caliope*, from Mexico.

[Case 32.]

ATTHIS AND RHODOPIS.

“LUCIFERS.”

The genus *Atthis* contains two species, *A. heloisæ*, from Mexico, and *A. ellioti*, from Guatemala. Only two representatives of the genus *Rhodopis* are known—*R. vesper*, from Peru (here exhibited), and *R. atacamensis*, from Chili.

[Case 33.]

HELIACTIN.

“SUN-GEM.”

One of the most elegant of all the Humming-birds; distinguished by its brilliant metallic double crest, and Magpie-like long graduated tail. The single species known, *H. cornuta*, comes from Brazil.

[Cases 34, 35.]

CHÆTOERCUS.

“WOOD-STARS.”

These tiny little birds are scarcely bigger than large bees, and one of them has been appropriately named *C. bombus* (Humble-bee). The tail is remarkable for its lengthened and pointed outside feathers. Three species are known—*C. jordaini* from Trinidad, *C. rosæ* from Venezuela, and *C. bombus* from Ecuador.

THAUMASTURA.

[Case 36.]

“SHEAR-TAIL.”

Distinguished by its peculiarly-shaped tail, the feathers of which are pointed, the middle ones being greatly elongate. It is only found in Peru, where it inhabits the humid districts. Several pairs are generally met with together. The males are extremely pugnacious, driving off every other kind of Humming-bird which ventures to enter their territory. The sexes are different, the female being much duller in colour. Only one species, *T. coræ*, is at present known.

[Cases 32, 37.]

DORICHA AND MYRTIS.

“WOOD-STARS.”

The tail, which has been the principal distinguishing feature of several of the genera previously noticed, is here still more remarkable, the centre feathers being so short as to be hardly distinguishable from their coverts. The bill is rather long and slender, and the feet are small. The sexes are different in colour. Five species are known, inhabiting Central America from Veragua to Mexico, as well as the Bahama Islands, whence two species have been described.

TILMATURA.

[Case 38.]

“SPARKLING-TAIL.”

Wings rather short and somewhat sickle-shaped. The tail-feathers are pointed, and the outermost narrow towards the tip, which is curved inwards; the tail is ornamented with alternating bands. One species, *T. duponti*, from Guatemala.

LOPHORNIS.

[Cases 39, 40, 41.]

“COQUETTES.”

Easily recognized by their crested heads and the tufted feathers or ruffs which project on each side of the throat. They inhabit the whole of Central America, from Mexico southwards, as well as the greater part of the South-American continent, except the parts lying south of Brazil and Peru. Ten species are known, of which the following are exhibited:—*L. delattrii*, inhabiting Panama and southwards through Colombia and Ecuador to Peru; *L. ornatus*, from Venezuela and Guiana; *L. gouldi*, from Amazonia; *L. magnificus*, from Brazil; *L. verreauxi*, from Colombia and Peru; and *L. caribbæa*, from Brazil.

GOULDIA AND DISCURA.

[Case 42.]

“THORN-TAILS.”

As implied by the English name, the tail-feathers of *Gouldia* are much elongated and sharply pointed; the tarsi are “booted” or covered with a tuft of feathers. Four species have been described, of which three are exhibited, viz.:—*G. popelairii*, from Colombia, Ecuador, and Peru; *G. langsdorffii*, from Brazil and Upper Amazonia; and *G. conversi*, from Colombia. *Discura* has a racket at the end of the tail, and contains only one species, *D. longicauda*.

STEGANURA.

[Case 43.]

“RACKET-TAILS.”

In this genus the elongate narrowed tail-feathers terminate in rackets or spatules; tarsi booted. Six species are known, which inhabit South America from Venezuela and Colombia, through Ecuador and Peru, into Bolivia.

LESBIA AND CYNANTHUS.

[Case 44.]

“TRAIN-BEARERS.”

Tail forked, with the outer feathers excessively elongate. The bill is very short and straight. Four species have been described, from the highlands of Colombia, Ecuador, and Peru.

SAPPHO.

[Case 45.]

“COMETS.”

These birds are perhaps the most gorgeous in existence as regards the colouring of their tails, which much resemble in shape that of *Lesbia*. They are of large size, and inhabit Peru, Bolivia, and the Argentine Republic, from which countries three species are known.

OXYPOGON.

[Case 46.]

“HELMET-CRESTS.”

Distinguished by a crest and a lengthened beard of white or buff-coloured feathers, which hangs from the throat. Two species—*Oxy-pogon lindeni* from Venezuela, replaced by *O. guerini* in Colombia.

RHAMPHOMICRON.

[Cases 46, 47.]

“THORN-BILLS.”

The bill is remarkably minute for the size of the bird. This genus also has a lengthened beard on the throat, like the preceding one, but

it consists either of purplish or metallic-green feathers. Six species are known, inhabiting Colombia and Ecuador, and ranging into Peru and Bolivia.

[Cases 48, 49.]

AVOCETTINUS AND AVOCETTULA.

“AVOCETS.”

Characterized principally by a short bill, which turns up slightly at the tip, much as in the Common Avocet (*Avocetta recurvirostra*). *Avocettinus eurypterus* is from Colombia, and *Avocettula recurvirostris* from Guiana.

[Case 50.]

CHRYSURONIA.

“GOLDEN-TAILS.”

As in the preceding genus, the tails of these Humming-birds are luminous, in the females as well as in the males; otherwise the sexes are different in colour. The bill is a little longer than the head and slightly curved. The tail is slightly rounded, and the tarsus clothed with feathers. The range of the five species known is extensive, as they are found from Guatemala through Colombia and Ecuador to Venezuela, and thence over the whole of Amazonia and Brazil to Paraguay and the Argentine Republic.

[Case 51.]

AUGASTES.

“VIZOR-BEARERS.”

The name which Mr. Gould has chosen for these curious little birds is not inappropriate, for the fantastic arrangement of the feathers of the head renders them easily recognizable. Two species are known, *A. superbus* and *A. lumachellus*, both from Brazil.

[Case 51.]

SCHISTES.

“WEDGE-BILLS.”

These diminutive birds are very closely allied to the members of the preceding genus, and have the bill very similar in form. The arrangement of the plumage is, however, somewhat different. Two species known, both inhabitants of Ecuador.

[Case 52.]

HELIOTHRIX.

“FAIRIES.”

Remarkable for their long graduated tails, the feathers of which are longer in the females than in the males. The bill is wedge-shaped. The plumage is also peculiar, consisting of green and white, with tufts of metallic blue on the sides of the neck. Three species are known, which are spread over the greater part of South America from Southern Brazil and Peru, northwards to Central America.

[Case 53.]

CHRYsolampis.

"RUBY AND TOPAZ."

The single species representing this genus is one of the commonest, and at the same time one of the most beautiful of all the known Humming-birds. It has for years been sent over to Europe in large quantities for the purposes of decoration of ladies' hats and dresses; and were it not for the extreme abundance of the species it would have been long ago exterminated. It is known at a glance by its ruby crown and golden throat. It ranges over the whole of Brazil, extending through Amazonia into Colombia, and northwards into Guiana and Venezuela.

[Case 51.]

BELLONA.

"GILT-CRESTS."

In many respects similar to the preceding genus, but recognizable by their well-developed crests. Two species, *B. cristata* and *B. exilis*, both inhabiting the West-India islands.

[Case 54.]

CEPHALOLEPIS.

"PLOVER-CRESTS."

The head is crested, one, sometimes two, feathers being produced beyond the rest to a considerable length. The females lack the crest. Two species are known, confined to South-eastern and Southern Brazil.

[Case 55.]

KLAIS.

"FLUTTERERS."

Of small size, with long wings and rounded tail; tarsi clothed. They are particularly fond of feeding from the flowers of the Guayava-tree, which blooms nearly all the year round. The single species known, *Klais guimeti*, is rather local in its habitat, but distributed from Costa Rica southwards into Venezuela and Colombia.

[Case 56.]

AGLÆACTIS.

"SUN-BEAMS."

The peculiar coloration of the rump forms one of the principal features in the present genus, for, although this part of the body is brilliantly coloured, it is necessary to look at it from behind towards the head to perceive the iridescence of the feathers. The females have the colouring a little less developed, but are otherwise similar to the males. The primaries or long feathers of the wing are sickle-shaped at the end. Four species have been described, which are inhabitants of Peru and Bolivia, extending through Ecuador into Colombia.

ERIOCNEMIS.

[Case 57.]

“PUFF-LEGS.”

This genus contains a large number of species, all of which exhibit the peculiar tuft of woolly feathers on the tarsi, which have gained for them the popular name of “Puff-legged” Humming-birds. The tail is forked, the wings are long and pointed, and the nostrils not hidden by plumes. The colouring of the tufts on the feet, which look like little powder-puffs, varies considerably with the species, being black in one, pale brown in another, chestnut and white in two more, while in the other thirteen it is pure white.

The seventeen species included in this genus inhabit South America from Venezuela and Colombia, through Ecuador into Peru, and Bolivia.

[Case 58.]

PANTERPE.

“FIRE-THROATS.”

The single species known is distinguished by a brilliant metallic throat. Head and centre of the breast deep blue. The sexes are alike in their rich colouring. Tarsi bare. *Panterpe insignis*, from Costa Rica and Veragua.

[Case 59.]

LEUCOCHLORIS.

“WHITE-THROATS.”

The tail is rounded, and the bill longer than the head and rather curved; the tarsi clothed. One species known—*L. albicollis*, from Brazil.

[Case 60.]

AGYRTRIA.

“EMERALDS.”

A very widely-spread genus, being found over the whole of Central America, and ranging over the entire continent of South America, with the exception of Chili and the countries south of Brazil. The bill is long and rather straight, the wings narrow, and the first primary somewhat sickle-shaped. No less than twenty species are known, all of which appear to have light-coloured bills, which are probably red when the birds are alive.

[Case 61.]

EUPHERUSA.

“STRIPE-TAIL.”

Three species have been described, all from Central America.

[Case 23.]*

POLYTMUS.

“ GOLDEN-THROATS.”

Rather large birds, with green plumage and tails of green and white, the tail-feathers being narrow and pointed. Sexes alike.

[Case 62.]

AMAZILIA.

“ AMAZILIS.”

A numerous group, consisting of not less than twenty-four species, which are spread over the whole of the South-American continent with the exception of Brazil, ranging northwards through Central America to Mexico. Some are found on the highlands, others frequent the hot sea-coast, and do not extend above 2000 feet altitude. They are fond of the blossoms of the orange- and lime-trees, and in some parts of Central America are said positively to swarm about the villages.

[Case 63.]

BASILINNA.

“ BLACK-EARS.”

Small birds with brilliant metallic plumage, the sexes being altogether unlike in colour; the bill straight, the wings long, and the tail almost square. Two species are known—one, *B. leucotis*, ranging from Mexico to Guatemala, being replaced in Southern California by *B. xanthusi*.

[Case 64.]

EUCEPHALA.

“ SAPPHIRES.”

In this genus, the prevailing colours of which are blue and bright green, the bill is straight and the nostrils bare, while the tail is rounded or only slightly forked. Nine species are known, most of them inhabiting Brazil and very rare; but some are found in Guiana, Venezuela, and Ecuador.

[Case 65.]

DAMOPHILA.

“ BLUE-THROATS.”

Only one species, *D. amabilis*, is known, ranging from Costa Rica southwards into Ecuador.

[Case 66.]

CHLOROSTILBON.

“ GREENLETS.”

Eight species have been described, inhabiting the entire South-American continent from Brazil and the Argentine Republic northwards into Mexico.

* *Vide supra*, p. 14.



